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*Text sequence
improper*

Amendment under Article 34

(substitute pages)

The present invention has made having regard to the state of the art noted above, and its object is to provide a connector for realizing compactness and space saving in time of increasing electrodes, a simplified element construction and solderless mounting.

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DISCLOSURE OF THE INVENTION

A connector according to the present invention has the following characteristic features.

10 A first characteristic feature of the present invention lies in comprising, as shown in Figs. 1 to 6, contact members 1 having elastically deformable points of contact formed in two locations, and a main connector body 2 for insulating and holding a plurality of contact members 1 arranged at intervals in a width direction with said points of contact A, B in the two locations of the respective contact members 1
15 being in the same positions as seen in the direction of arrangement, wherein said main connector body 2 includes a pair of socket portions 3 for receiving board ends 10 defining land electrodes 10a, 10b in two rows corresponding to said points of contact A, B of the respective contact members 1 lying in the same positions as seen in the direction of
20 arrangement, so that the land electrodes 10a, 10b are in pressure contact with the corresponding points of contact A, B.

With this construction, the plurality of contact members having the elastically deformable points of contact formed in two locations are arranged at intervals in the direction of width. The board ends
25 defining land electrodes in two rows corresponding to the points of contact of the respective contact members lying in the same positions as seen in the direction of arrangement are inserted, respectively, into the pair of socket portions of the main connector body which insulates and holds the contact members with the points of contact in the two
30 locations being in the same positions as seen in the direction of

arrangement. Then, the point of contacts of the contact members are pushed by the board ends to become elastically deformed, and the land electrodes formed on the board ends are placed in pressure contact with the corresponding points of contact of the contact members.

5 That is, when the two board ends to be connected are inserted into the pair of socket portions, respectively, the land electrodes formed on one of the board ends make a pressure contact with the points of contact in one of the two locations of the contact members, and the land electrodes formed on the other board end make a pressure contact with
10 the points of contact in the other of the two locations of the contact members. Thus, the land electrodes of the above two board ends are conductively connected by the respective contact members.

 Specifically, the inward land electrodes 10a of the board ends 10 contact the points of contact A of the contact members located adjacent
15 the inlets of the socket portions, and the outward land electrodes 10b of the board ends 10 contact the points of contact B of the contact members located in the depths of the socket portions. Thus, the inward land electrodes 10a of one of the board ends and the outer land electrodes 10b of the other board end become conductive through the contact members.
20 The two printed circuit boards having the board ends are connected electrically.

 Thus, the main connector body insulates and holds the plurality of contact members arranged at intervals in the direction of width, and the two board ends to be connected are inserted into the main connector
25 body to place the land electrodes of each board end in pressure contact with the points of contact in each end region of the contact members. This construction can achieve compactness and space saving by reducing the intervals at which the contact members are juxtaposed, despite an increase in the number of contact members for coping with
30 multiple electrodes. The element construction is simple in that only

the two elements, i.e. the contact members and the main connector body,
are required, which achieves a reduction in die cost. Further, the two
board ends have only to be placed in pressure contact with the
respective contact members, without requiring solder mounting, which
5 eliminates the restriction as to the order of mounting the board ends.
In the case, for example, of an apparatus set having a plurality of units
finally assembled after being manufactured in different locations, the
flexibility of unit manufacture may be improved.

Thus, a connector is provided for realizing compactness and

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ART 34 ANDT

CLAIMS

1. (Amended) A connector comprising contact members (1) having elastically deformable points of contact formed in two locations, and a main connector body (2) for insulating and holding a plurality of contact members (1) arranged at intervals in a width direction with said points of contact (A) (B) in the two locations of the respective contact members (1) being in the same positions as seen in the direction of arrangement, wherein said main connector body (2) includes a pair of socket portions (3) for receiving board ends (10) defining land electrodes (10a) (10b) in two rows corresponding to said points of contact (A) (B) of the respective contact members (1) lying in the same positions as seen in the direction of arrangement, so that the land electrodes (10a) (10b) are in pressure contact with the corresponding points of contact (A) (B).
2. A connector as defined in claim 1, wherein said contact members (1) are formed in an S-shape as seen in the direction of arrangement, and are held in a middle part of the S-shape by said main connector body (2), with said points of contact (A) (B) being formed in end regions (1a) (1b) of the S-shape extending in the same direction in which said board ends (10) are inserted for pressure contact.
3. A connector as defined in claim 1 or 2, wherein said pair of socket portions (3) are formed in two opposite surfaces of said main connector body (2) to receive said board ends (10) inserted in opposite directions.
4. A connector as defined in claim 1 or 2, wherein:
said main connector body (2) includes partition walls (4) for defining a plurality of divisions (K) for individually accommodating said contact members (1), and guides (5) for guiding said contact members (1)

ABSTRACT

Contact members (1) have elastically deformable points of contact (A) (B) formed in two locations, and a main connector body (2) is provided for insulating and holding a plurality of contact members (1) arranged at intervals in a width direction with the points of contact (A) (B) in the two locations of the respective contact members (1) being in the same positions as seen in the direction of arrangement. The main connector body (2) includes a pair of socket portions (3) for receiving board ends (10) defining land electrodes in two rows corresponding to the points of contact (A) (B) of the respective contact members (1) lying in the same positions as seen in the direction of arrangement, so that the land electrodes are in pressure contact with the corresponding points of contact (A) (B).

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